

PulseNet International

Objectives

The Centers for Disease Control and Prevention (CDC) is the founding member and chairs the steering committee of PulseNet International. PulseNet International participates in the investigation of outbreaks of foodborne infections and facilitates early recognition of foodborne disease clusters that may represent common source outbreaks through molecular surveillance of infections at the global level by:

- Partnering with reference laboratories throughout the world
- Building capacity for molecular surveillance of foodborne infections
- Collaborating on the development, validation and implementation of internationally standardized subtyping methods to be used in the networks
- Performing collaborative studies on the geographic distribution and spread of different clones of foodborne pathogens

Program Description

PulseNet International is a network of seven national and regional laboratory networks dedicated to tracking foodborne infections world-wide. Each network has a coordinating laboratory, which collects data from and is responsible for training and certification of its members, as well as coordination of regional workshops and meetings. This "network of networks" is an efficient means of defining the international scope of such outbreaks and is a critical component of international outbreak investigations. All participating laboratories utilize standardized genotyping methods. Subtyping and epidemiological information are shared in real-time between the participating laboratories. PulseNet International provides early warning of international food and waterborne disease outbreaks through the detection of case-clusters associated with a particular subtype.

Public Health Impact

- Increased collaboration between international reference laboratories: **84 countries** have become members of PulseNet international since 1996.
- Improved laboratory and molecular surveillance world-wide: **129 laboratories from 70 countries** trained on PulseNet methods in Latin America, Canada, Europe, the Middle East, Asia Pacific.
- More efficient detection, investigation and control (including product recall) of international outbreaks of foodborne infections:
 - **PulseNet Japan identified the source of an E. coli O157 illness** in Okinawa, with real-time communication to PulseNet USA. Trace-back led to a single ground beef producer in the US and products were recalled in the US and military bases in the Far East preventing further illness. Network capability between PulseNet International and PulseNet USA allowed for faster recall of contaminated product and prevention of further illness.

For more information, please visit <http://www.pulsenetinternational.org>

Where we work:

In more than 120 laboratories from over 80 countries

The networks and location of the coordinating laboratories are:

PulseNet Africa ,
Johannesburg, South Africa

PulseNet Asia Pacific,
Kowloon, Hong Kong

PulseNet Canada, Winnipeg,
Manitoba

PulseNet Europe Copenhagen,
Denmark

PulseNet Latin America and
the Caribbean, Buenos Aires,
Argentina

PulseNet Middle East, Muscat,
Oman

PulseNet USA
Atlanta, Georgia

